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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Attorney Docket No. 2005\_1625A  
Takumi KATSURAO et al. : Confirmation No. 1435  
Serial No. 10/553,442 : Group Art Unit 1796  
Filed February 3, 2006 : Examiner William K. Cheung  
-POROUS FILM OF VINYLIDENE : Mail Stop: AF  
FLUORIDE RESIN AND METHOD FOR  
PRODUCING SAME

**RESPONSE AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE UNDER 37.CFR.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP-----1700**

Sir:

Responsive to the Office Action of June 9, 2009, the time for responding thereto being extended for one month in accordance with a Petition for Extension of Time submitted herewith, Applicants submit the following remarks in support of the patentability of the presently claimed invention over the disclosures of the references relied upon by the Examiner in rejecting the claims. Further and favorable reconsideration is respectfully requested in view of these remarks.

Thus, the rejection of claims 1, 2, 4 and 9 under 35 U.S.C. §102(b) as being anticipated by Meguro et al. (US '136), as well as the rejection of claims 1 and 5 under 35 U.S.C. §102(b) as being anticipated by Kashio et al. (US '637), the rejection of claim 8 under 35 U.S.C. §102(b) or 35 U.S.C. §103(a) based on Meguro et al., the rejection of claims 8 and 9 under 35 U.S.C. §102(b) or 35 U.S.C. §103(a) based on Kashio et al., the rejection of claims 10-12 under 35 U.S.C. §103(a) as being unpatentable over Meguro et al. in view of Takamura et al. (US '773), the rejection of claims 10-12 under 35 U.S.C. §103(a) as being unpatentable over Kashio et al. in view of Takamura et al. and the rejection of claims 3, 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over Meguro et al. in view of Muller et al. (US '401), are respectfully traversed.

Both of the primary references, Meguro et al. and Kashio et al., disclose vinylidene fluoride polymers including a copolymer of vinylidene fluoride with a hydrophilic monomer (as used in the present invention), used as an **electrode binder** for electric double layer capacitors or lithium ion batteries **for enhancing the adhesion with electroconductive substrates** (Meguro et al., column 3, lines 24-31; Kashio et al., column 3, lines 50-67).

The rejections are based on a premise that the primary references disclose the vinylidene fluoride copolymer as a separator, which is a porous membrane, for lithium ion batteries. This is not true.

Takamura et al., cited as a secondary reference, disclose a process for producing a hollow fiber porous membrane of vinylidene fluoride polymer, but fail to disclose a vinylidene fluoride polymer hydrophilized through copolymerization. Accordingly, Takamura et al. fail to disclose the effects of improving the soiling resistance and water permeability owing to the use of a hydrophilic vinylidene fluoride copolymer in the present invention.

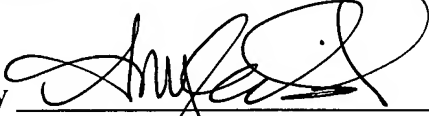
Muller et al., cited as another secondary reference, disclose a vinylidene fluoride polymer grafted with a hydrophilic polymer, which is however essentially different from a hydrophilic vinylidene fluoride copolymer obtained through copolymerization (monomer-to-monomer reaction) of vinylidene fluoride monomer and a hydrophilic monomer, as discussed in the previous response, filed March 30, 2009.

For these reasons, the presently claimed invention is neither anticipated nor suggested by either of the Meguro et al. and Kashio et al. references, nor are any of the present claims directed to subject matter which is obvious from a combination of either of these references with Takamura et al. or Muller et al.

Therefore, in view of the foregoing remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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